The Bureau of Land Management
And the USDA Forest Service
Present

The Manager's Tool Kit For Environmental Compliance And Pollution Prevention

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Module 1

Why Do We Care About Environmental Laws?

"To protect human health and the environment"

Avoid litigation.

Minimize exposure to personal and agency liability.

TAPE TO BE SHOWN AFTER THIS SLIDE -- HAZMAT 101

What is Environmental Law?

- U. S. And State constitutions
- Federal and State statutes
- Federal and State regulations (EPA 40 CFR – OSHA 29 CFR – DOT 49 CFR)
- Federal and State court decisions
- Common law (torts such as negligence, strict liability, nuisance, trespass)

Acronyms/Definitions:

EPA -- U.S. Environmental Protection Agency

OSHA – U.S. Occupational Safety and Health Administration

CFR – Code of Federal Regulations

DOT – U.S. Department of Transportation

tort – A "civil wrong" that can be taken to a civil court by an individual, corporation, or government to get judicial relief in the form of money damages or other court ordered relief.

Federal-State Relationship

❖Federally run environmental programs (ex. CERCLA) -- Not delegable to the States, but some States have similar programs.

❖Federal environmental programs with State primacy options (ex. CAA, CWA, SDWA) – Many federal programs are delegable to the States if certain minimum conditions are met.

❖Independent State environmental programs.

Acronyms:

CERCLA -- Comprehensive Environmental Response, Compensation and Liability Act

CAA – Clean Air Act

CWA – Clean Water Act

SDWA – Safe Drinking Water Act

ENFORCEMENT

- Virtually all environmental laws provide enforcement tools to compel compliance.
- Criminal penalties to $50,000 and 15 years in prison per violation.
- Civil penalties to $50,000.
- Natural resources damage assessments to $50M (Comprehensive Environmental Response, Compensation and Liability Act -- CERCLA).
- Administrative orders.
- Injunctions.
- Citizen suits – Often used by environmental groups against federal agencies. CERCLA specifically allows citizen suits to force federal facilities to comply with the statute. (42 U.S.C. Section 9659(a)).

LIABILITY CONCEPTS

❖Sovereign immunity for federal agencies waived in many cases – Example, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) contains broad waivers of sovereign immunity which permit individuals and States to bring recovery actions against federal facilities. (42 U.S.C. Section 9620(a)).

❖Federal activities increasingly subject to State and public accountability.

❖Liability may be imposed on individuals.

❖Some criminal violations require only negligent acts instead of actual intent.

❖Criminal liability may be imposed even if a person does not know that an act violates the law.

❖Explicit or implicit knowledge of subordinate's acts may result in liability.

❖Failure to implement programs may result in liability.

FACTORS THAT MAY BE USED TO DETERMINE PERSONAL LIABILITY

- Acting outside scope of duties.
- Authority to direct resources and activities.
- Capacity to make timely discovery.
- Capacity to prevent damage.
- Failure to implement management systems to address legal requirements.
- Intentionally disregarding the law.
- Explicit or implicit knowledge of subordinate's activities.

ORGANIZATIONAL LIABILITY

❖Government agencies may be held civilly liable for violating environmental laws through actions of employees.

❖Government agencies may be held liable for cleanup costs and natural resource damage costs under CERCLA (Comprehensive Environmental Response, Compensation and Liability Act).

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) (1980)

Also known as "Superfund"

Section 120(a) of CERCLA provides specifically for federal facility compliance with CERCLA, both substantively and procedurally, to the same extent required of any private entity.

PURPOSES OF CERCLA

•Funding and authority to respond to hazardous substance releases. -- Note that CERCLA relates to "hazardous substances" which is a specifically defined term.

•Cleanup of old waste sites. – Two categories of response actions:

1. Removal Actions
   a. Undertaken to deal with environmental emergencies.
   b. Just about any action to diminish the threat of a hazardous waste site that can be done promptly such as providing alternative water supplies, immediate cleanup, and putting up a fence.
   c. Can occur on non-National Priorities List (NPL) sites.
   d. Can occur at a more seriously contaminated NPL site that will be subject to a remedial action.
   e. Ordinarily must be completed within one year and cost no more than $2M. Many exceptions.

2. Remedial Actions
   a. Long-term, permanent cleanups.
   b. Designed to permanently eliminate any threat that a site may pose.
   c. Examples: Constructing dikes, trenches, clay covers; excavations; permanent destruction or neutralization of hazardous substances.

•Section 120 of CERCLA also addresses hazardous waste cleanup at federal facilities and establishes requirements that are unique to federal facilities. These requirements include creation of a Federal Agency Hazardous Waste Compliance Docket which lists facilities that manage hazardous waste or have the potential to have hazardous waste problems. The list is used to provide timetables for addressing these problems at each facility.

DEFINITION OF HAZARDOUS SUBSTANCES

- Certain water pollutants (Clean Water Act Sections 307(A) and 311(b)(2)(A)).
- Certain air pollutants (Clean Air Act Section 112).
- Certain toxics (none yet named under Toxic Substances Control Act Section 7).
- Hazardous wastes under the Resource Conservation and Recovery Act.
- Substances designated by EPA under CERCLA Section 102. -- Excludes petroleum.

CERCLA RELEASE REPORTING

Hazardous substance release

"Release" includes any spilling, leaking, pumping, pouring, emptying, emitting, discharging, injecting, escaping, leaching, dumping, or disposing of something in any manner.

CERCLA RELEASE REPORTING

- Hazardous substance release
- **In a Reportable Quantity**

Reportable quantities (RQs) are found in a table published by EPA.

RQs are always in pounds. Usually 1, 10, 100, 1000, or 5000 pounds.

RQs are based on the pounds of hazardous substance in the material that is released. For example, if 2500 pounds of a material which contains 10% of a certain hazardous substance is released, the total hazardous substance released is 250 pounds. If the RQ for that hazardous substance is 1000 pounds, not reportable release has occurred.

RQs have no effect on a party's liability for any subsequent cleanup. RQs simply determine a reporting requirement.

CERCLA RELEASE REPORTING

- Hazardous substance release
- In a Reportable Quantity
- **Entering the environment**

"Entering the environment" includes the air, water or ground, usually to the extent that the hazardous substance escapes or has the potential to escape from the facility. Releases in the normal workplace, engine exhaust, nuclear releases, and application of fertilizer are not included.

CERCLA RELEASE REPORTING

- Hazardous substance release
- In a Reportable Quantity
- Entering the environment
- **Report to the National Response Center (NRC)**

The report to the NRC is by telephone.

No written report required.

Keep a record of the call.

NRC may call the Regional EPA office, which may in turn call you to see if assistance is necessary. Other than that, do not expect a "response" from the NRC.

CERCLA RELEASE REPORTING

- Hazardous substance release
- In a Reportable Quantity
- Entering the environment
- Report to the National Response Center (NRC)
- **CERCLA release reporting does not take the place of any other reporting requirement.**

There are other reporting requirements under Emergency Planning and Community Right to Know Act, Clean Air Act, Clean Water Act, and many other statutes and regulations, including State statutes and regulations. All must be followed.

CERCLA
CLEAN-UP LIABILITY

•Strict (Without fault): It does not matter if you are the "good" guy or the "bad" guy; whether you are government or industry; whether you lawfully disposed of a hazardous substance or not. Also, it does not matter that the substance you disposed is not creating the problem that requires the cleanup.

•Joint (All Potentially Responsible Parties): All are liable for cleanup costs, but this does not mean that EPA will pursue all parties, or that costs are allocated by EPA to the parties by some equitable means.

•Several (Each individual Potentially Responsible Party): Each party who is liable for cleanup costs may be assessed the entire cost of the cleanup alone, or in conjunction with a few other parties.

•Retroactive (Applies before and after 1980): No matter when hazardous substances were disposed, if a cleanup is required, the parties are liable. Retroactivity does not apply to natural resource damages. (42 U.S.C. Section 9607(f)).

POTENTIALLY RESPONSIBLE PARTIES (PRPs)

"Potentially Responsible Parties" (PRPs) were defined by Congress in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

POTENTIALLY RESPONSIBLE PARTIES

Past and present owners of a facility or site from the time a release occurs until it stops

The "operator" does not need to have been the party that caused the release.

The "operator" does not even need to know about the release.

The mere fact of operating a facility or site is sufficient to create liability.

All past operators are liable, not just the current operator.

POTENTIALLY RESPONSIBLE PARTIES

Past and present operators of a facility or site from the time the release occurs until it stops

The "operator" does not need to have been the party that caused the release.

The "operator" does not even need to know about the release.

The mere fact of operating a facility or site is sufficient to create liability.

All past operators are liable, not just the current operator.

POTENTIALLY RESPONSIBLE PARTIES

Generators of hazardous substances

A "generator" is any person or agency whose act or process creates the hazardous substance which is being disposed. That does not include a manufacturer who sells a product. The person or agency who uses the product and then intends to dispose of it is the "generator". Also, a person or agency who picks up a hazardous substance from a site with the intent of disposing of it is a "generator".

CERCLA CLEAN-UP

National Contingency Plan

The National Contingency Plan (NCP) sets forth procedures and standards for cleanup of hazardous waste sites including the framework for preliminary assessments (PAs), site inspections (SIs), the Hazard Ranking System (HRS), the National Priorities List (NPL), and requirements for remediations and removals.

These elements are typically found in a remedial process. They vary from site to site, and often occur in different order.

CERCLA does not specify cleanup standards. "Clean" does not mean sterile. Cleanups must meet all legally applicable requirements for the hazardous substance, pollutant or contaminant being addressed, and cleanups must meet all relevant and appropriate requirements. These are called ARARs – Applicable or Relevant and Appropriate Requirements. These may include chemical specific requirements (numeric standards), location specific requirements (restrictions on activities at the site), and action specific requirements (technology or activity based requirements such as land disposal restrictions).

CERCLA CLEAN-UP

Preliminary Assessment (PA)

Preliminary Assessment (PA) conducted by the "lead" agency which may be EPA or may be a State agency.

A Preliminary Assessment, and the subsequent Site Inspection, if necessary, must be done within 18 months after a federal site is listed on the Federal Agency Hazardous Waste Compliance Docket.

Preliminary Assessments include:

Review of available information.

A reconnaissance visit to determine if a release requires additional investigation.

The goal of Preliminary Assessments is to set priorities for Site Inspections, determine if removal actions are necessary, and to eliminate from further consideration those releases that do not threaten public health or the environment.

CERCLA CLEAN-UP

Site Inspection
(SI)

If the Preliminary Assessment shows evidence of potential or significant threat, an on-site inspection is conducted called a "Site Inspection". Samples are collected, waste handling practices are identified, contaminants are identified, and pathways to human and environmental targets of contamination are identified.

CERCLA CLEAN-UP

Hazard Ranking System (HRS) score

Information from the Preliminary Assessment and Site Inspection is used to establish a numeric score for the site under the Hazard Ranking System (HRS).

Hazard Ranking System (HRS) -- A mathematical evaluation method to assess contaminant sources, pathways, and receptors to determine if a site should be placed on the National Priorities List (NPL).

Score of 28.5 and above will result in a site being placed on the NPL.

CERCLA CLEAN-UP

National Priorities List (NPL)

Sites are included on the National Priorities List (NPL) if it meets one of these three criteria:

1. The HRS score is 28.5 or higher; or,
2. A State has designated a site as its highest priority; or,
3. The Agency for Toxic Substances and Disease Registry (ATSDR) issues a health advisory recommending that people stay off the site; EPA determines that the site poses a significant risk to public health; and, EPA anticipates that its remedial authority is a more cost-effective response than its removal authority.

EPA may use Superfund money to remediate an NPL site, BUT NOT FEDERAL FACILITIES!

CERCLA CLEAN-UP

EPA notice of PRP status

- EPA may notify all or some of the PRPs that it has identified relating to the site.
- EPA may issue Section 104(e) letters requiring information from potential PRPs.
- These steps may be taken by EPA for any site that requires or may require a cleanup under CERCLA, whether or not the site is on the National Priorities List (NPL).

CERCLA CLEAN-UP

Remedial Investigation/Feasibility Study (RI/FS)

- Purpose to assess site conditions and evaluate alternative remedies.
- May take years to complete.
- May divide the site into "operable units" for study.
- Investigation of the site and alternatives cleanup methods usually occurs simultaneously.

CERCLA CLEAN-UP

Natural Resources Damage Assessment

•Natural resources damages include costs associated with loss of a contaminated area's natural resources including land, wildlife, fish, biota, air, water, groundwater, drinking water supplies, and all other resources held in trust for the public. Does not include damages to private land. The U.S. Department of Interior, not the EPA, is responsible for implementing natural resource damage assessments in CERCLA cleanup cases.

CERCLA CLEAN-UP

Record of Decision (ROD)

- Selected remedy must protect human health and the environment.
- Remedy placed in administrative record.

CERCLA CLEAN-UP

Remedial Design/Remedial Action (RD/RA)

- Remedial Design (RD) is the detailed design of the construction and operation of the selected remedy.
- Remedial Action (RA) involves the construction and operation of the remedy, and requires consultation with the affected State.

CERCLA CLEAN-UP

5 year review

Required for sites where remedial actions leave residual contaminants.

CERCLA CLEAN-UP

Long term monitoring

- PRPs must operate and maintain activities that are initiated after the remedy is operational for the life of the remedy.
- This may extend for many years.

Mitigation Of CERCLA Liability

The following management techniques may be helpful in mitigating liability under CERCLA:

Use permitted storage, treatment and disposal sites only.
Reduce number of disposal sites used.
Use sites previously used.
Cost is only one factor – may not be deciding factor.
Look for alternatives to disposal.
Substitute products – minimization and toxicity.
Go where the "big boys" go –follow trends of large organizations.
Establish criteria for disposal sites permitted for waste.
Favor recycling, reclamation, incineration.
Consider the site's reputation.
Consider who else uses the site.
Consider the site's business backing.
Consider the size of the site.
Contractor does not dictate where to dispose.
Avoid purchasing contaminated sites. – Acquisition & Disposal Policy.
Inspect the site before acquisition for contamination.
Recognize liability.

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Module 2

FEDERAL FACILITY COMPLIANCE ACT (FFCA) (1992)

This act provides that all federal facilities and employees are subject to all federal, state and local laws relating to solid waste and hazardous waste.

"FACILITY"

Definition: All contiguous land, and structures, and other appurtenances and improvements on the land.

FFCA

- Civil sanctions (fines, injunctions).
- Licensing, permitting requirements.
- Reasonable fees.
- Inspections.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) (1976)

This act deals with solid waste, hazardous waste, and underground storage tanks.

Federal facilities are subject to the Resource Conservation and Recovery Act (RCRA) the same as industry and all other regulated entities.

1. Subtitle C of RCRA relates to hazardous waste rules.
2. Subtitle D of RCRA relates to solid waste rules.
3. Subtitle I of RCRA relates to underground storage tank rules.

HAZARDOUS WASTE CLASSIFICATION (Subtitle C of RCRA)

In order to determine if a certain waste is regulated as a "hazardous waste" under the Resource Conservation and Recovery Act, three questions must be answered:

- Is the material a "solid waste"?
- Is the waste excluded from regulation as a "hazardous waste"?
- Is the waste listed as a hazardous waste, or does it meet one of the hazardous waste characteristics?

"SOLID" WASTE

A material is "solid" if it is:

- Solid
- Semi-solid
- Liquid
- Contained gas

"SOLID WASTE"

A material that is abandoned, inherently waste-like, or recycled.

HAZARDOUS WASTE EXCLUSIONS

- Permitted water discharges.
- Household waste.
- Mining overburden returned to the mine site.
- Oil and gas exploration drilling waste.
- Wastes from the extraction, beneficiation, and processing of ores and minerals, including coal.
- Used batteries returned to manufacturer.
- Many others (40 CFR 261.4)

EMPTY CONTAINERS

A container is considered "empty if:

•All liquids removed by normal means.

•One inch maximum residue in the bottom.

•Maximum 3% volume left in containers under 110 gallons; .3% volume left in
larger containers.

LISTS OF HAZARDOUS WASTES

•Nonspecific source list (such as spent nonhalogenated solvents such as toluene or methyl ethyl ketone, electroplating sludge, dioxin). Wastes on the nonspecific source list are assigned a code number preceded by the letter "F".

•Specific source list (such as lead-based paint, wood preservatives, petroleum refining, chemical manufacturing). Wastes on the specific source list are assigned a code number preceded by the letter "K".

•Commercial chemical products list (primarily for pure grade products; chemicals with only one active ingredient), including any spilled commercial chemical product and any contaminated residue. Wastes on the commercial chemical products list are assigned a code number preceded by the letter "U", except as noted below for acute hazardous wastes.

•For certain highly toxic commercial chemical waste products called "acute hazardous wastes", special rules apply. Acute hazardous wastes are designated by a numeric code preceded by the letter "P".

REMEMBER: The lists are only used for wastes! The hazardous waste rules, including the lists, do not apply to products that are being used!

HAZARDOUS WASTE CHARACTERISTICS

- **Ignitable**
- **Reactive**
- **Corrosive**
- **Toxic (TCLP)**

REMEMBER: The hazardous waste characteristics only apply to wastes! The rules do not apply to products that are being used!

IGNITABLE

•Liquid, containing less than 24% alcohol by volume, with flash point less than 140° F.

•Non-liquid that is a spontaneous fire hazard.

•Ignitable compressed gas.

•Oxidizers.

REACTIVE

- Unstable.
- Reacts violently with water.
- Explosives.
- Explosive reaction to concussion.

CORROSIVE

- Liquid with pH less than or equal to 2.
- Liquid with pH more than or equal to 12.5.

TOXIC

Toxicity Characteristic Leaching Procedure (TCLP)

TCLP includes 25 organic chemicals, 8 inorganic compounds, and 6 pesticides.

- Metals: arsenic(5ppm); barium (100ppm), cadmium (1ppm); chromium (total, 5ppm); lead (5ppm); mercury (5ppm); selenium (.2ppm); silver (5ppm)
- Pesticides: endrin (.02ppm); lindane (.4ppm); methoxychlor (10ppm); toxaphene (.5ppm); 2,4D (10ppm); D,4,5-TP Silvex (1ppm)
- Benzene (.5ppm)
- Cresol (200ppm)
- Trichloroethylene (.5ppm)
- 22 other organic compounds

"GENERATOR"

Definition: A "generator" of a hazardous waste is the person or facility whose act or process creates the hazardous waste.

The generator is responsible for determining if the waste being created qualifies as "hazardous waste".

WHY CARE ABOUT GENERATOR STATUS?

Generator status drives the regulations that must be followed by a facility. The less hazardous waste generated, the fewer rules have to be followed.

Regulatory agencies inspect facilities which generate large quantities of hazardous waste more often than facilities which generate smaller quantities.

GENERATOR STATUS: "3 CLASSES"

•Conditionally-exempt small quantity generator (CESQG). Generates less than 100 kg/month of hazardous waste, and less than 1 kg/month of acute hazardous waste.

•Small quantity generator (SQG). Generates from 100-1000 kg/month of hazardous waste, and less than 1 kg/month of acute hazardous waste.

•Generator. Generates over 1000 kg/month of hazardous waste, or more than 1 kg/month of acute hazardous waste.

NOTE: Hazardous wastes are measured in kilograms (kg). A kilogram is approximately 2.2 pounds.

CONDITIONALLY-EXEMPT SMALL QUANTITY GENERATOR (CESQG)

- Maximum accumulation 1000 kg.
- Treat/dispose at a permitted treatment, storage, or disposal (TSD) facility.
- No permit required.
- Notification to EPA/State regulatory agency, and EPA identification number not required.
- Use of manifests not required.

SMALL QUANTITY GENERATOR (SQG)

- Maximum accumulation 6000 kg up to 180 days; or, 270 days for shipments over 200 miles.
- Treat/dispose at a permitted treatment, storage or disposal facility.
- No permit required.
- Notification to EPA/State regulatory agency, and EPA identification number required.
- Numerous storage, inspection, records, manifest, training, and report requirements.

LARGE QUANITY GENERATOR

- Maximum accumulation any amount up to 90 days.
- Treat/dispose at a permitted treatment, storage or disposal facility.
- No permit required.
- Notification to EPA/State regulatory agency, and EPA identification number required.
- Numerous storage, inspection, records, manifest, training, and report requirements (much more strenuous than SQG requirements).

FEDERAL SOLID WASTE REGULATIONS (SUBTITLE D OF RCRA)

Apply to "municipal solid waste landfill units" which are discrete areas that receive "household waste" and may, in addition, receive other wastes such as industrial wastes. Note that the federal solid waste landfill rules do not apply to other types of disposal facilities.

FEDERAL SOLID WASTE REGULATIONS

Federal solid waste regulations include:

- Location restrictions.
- Operational requirements.
- Groundwater monitoring requirements.
- Corrective action requirements.

LOCATION RESTRICTIONS

- Municipal solid waste landfills prohibited in or near:

  - Airports
  - Floodplains
  - Unstable areas
  - Wetlands
  - Seismic impact areas
  - Fault areas

OPERATIONAL REQUIREMENTS

- All owners/operators must:

  Exclude the receipt of hazardous waste.

  Provide daily cover.

  Control public access.

  Construct run-on and run-off controls.

  Control discharges of surface waters.

  Cease disposal of most liquid wastes.

  Keep records to demonstrate compliance.

  Control on-site disease vectors

  Provide routine methane monitoring

  Eliminate most open burning

GROUNDWATER MONITORING

- Installation of monitoring system.
- Sampling and analysis program.
- Semi-annual detection of 62 constituents.
- If any statistical increase in any constituent, sample for 213 constituents.

CORRECTIVE ACTION

If there is any statistical increase in any of the 213 constituents over the ground water protection standard, the owner/operator must implement corrective action.

UNDERGROUND STORAGE TANKS (USTS) (SUBTITLE I OF RCRA)

The federal UST program is delegable to the states.

PURPOSES OF UST REGULATIONS

- Identify existing tanks.
- Bring existing tanks up to minimum design and operations standards, or close them.
- Identify leaking tanks.
- Initiate corrective action, or close them.

DEFINITION OF UST'S

Tanks, including underground pipes, that contain a "regulated substance", the volume of which tank and piping is 10% or more beneath the surface of the ground.

NOTE: If underground piping is long enough or large enough, it is possible for a tank that is totally above ground to be an "underground storage tank" because the volume of the piping comprises more than 10% of the total system volume.

"REGULATED SUBSTANCES"

- **All CERCLA hazardous substances**
- **Petroleum and petroleum-based substances**
- **Does not include hazardous wastes**

Tanks holding hazardous wastes are regulated under Subtitle C of RCRA.

UST Exclusions

Heating oil storage tanks for on-premise use.

Septic tanks.

Pipeline facilities subject to the Natural Gas Pipeline Safety Act or Hazardous Liquid Pipeline Safety Act.

Surface impoundments, pits, lagoons.

Storm water/wastewater collection systems.

Liquid traps and gathering lines directly related to oil and gas production.

Storage tanks situated underground but above a floor surface allowing inspection.

UST
Operator Requirements

- Notification regarding tank to State agency.
- Notification of suspected/confirmed releases.
- Corrective action.
- Notification of closure.
- Demonstration of financial responsibility.
- Records of inspections/testing of cathodic protection, repairs, release detection.

UST
Performance Standards

- Corrosion protection.
- Spill and overfill protection.
- Release detection.

ABOVE GROUND STORAGE TANKS

- Regulated by States; no federal requirements.
- Apply best management practices.

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Module 3

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT (EPCRA) (1986)

EPCRA PURPOSES

- Provide public access to certain information concerning hazardous chemicals present in the community.
- To use the information provided by facilities possessing certain hazardous chemicals to adopt local emergency response plans in the event of a chemical release.

STATE EMERGENCY RESPONSE COMMISSIONS -- PURPOSES

- **Designate emergency planning districts**
- **Appoint local emergency planning committees (LEPCs)**
- **Supervise local committees**
- **Handle public information requests**

Emergency planning districts may consist of existing political subdivisions in a state, or may be multi-jurisdictional.

LOCAL EMERGENCY PLANNING COMMITTEES -- PURPOSES

- **Prepare a local emergency plan as required by Section 303**
- **Handle public information requests**

Local emergency planning committees (LEPCs) must include representatives of elected state and local officials, police, fire, civil defense, and public health professionals; environmental, hospital, and transportation officials; community groups; and, media.

EPCRA Notification/Reporting Requirements

- Emergency Planning Notification (Section 302).
- Facility Emergency Coordinator Notification (Section 303).
- Emergency Release Notification (Section 304).
- Material Safety Data Sheet Submission (Section 311).
- Material Safety Data Sheet Inventory (Section 312).
- Toxic Chemical Release Reporting (Section 313).

NOTE: EPCRA does not apply to the transportation of substances, including storage incident to transportation, except for the Section 304 emergency notification requirements.

Emergency Planning Notification (Section 302)

Covered substances: Listed "extremely hazardous substances"

Over 360 "extremely hazardous substances" (40 CFR Part 355).

EMERGENCY PLANNING NOTIFICATION (SECTION 302)

Covered facilities: Those having "threshold planning quantities" of any "extremely hazardous substance"

Each facility must determine if it has a Threshold Planning Quantity (TPQ) of an "extremely hazardous substance".

"Facilities" include buildings, equipment, structures, and all other stationary items on a single site, or on contiguous or adjacent sites, and which are owned or operated by the same person. (40 CFR 355.20)

EMERGENCY PLANNING NOTIFICATION (SECTION 302)

Notification: To State Emergency Response Commission (SERC) and EPA by March 3, 1994

Notice to the Local Emergency Planning Committee is not required under Section 302. However, it probably should be considered.

EMERGENCY PLANNING NOTIFICATION (SECTION 302)

Frequency: One time

Any changes that affect community planning must also be reported to the LEPC.

FACILITY EMERGENCY COORDINATOR NOTIFICATION (SECTION 303)

Covered facilities under Section 302 notify Local Emergency Planning Committee (LEPC) of "facility emergency coordinator"

The "facility emergency coordinator" is supposed to be available to participate in emergency planning with the LEPC relating to the facility.

Facility Emergency Coordinator Notification (Section 303)

Purpose: To participate in emergency planning process

FACILITY EMERGENCY COORDINATOR NOTIFICATION (SECTION 303)

Due date: August 3, 1994

For any required notification, if a facility has failed to make a notification, the best advice is to do it late rather than not to do it at all.

FACILITY EMERGENCY COORDINATOR NOTIFICATION (SECTION 303)

Frequency: As required by LEPC

The name and contact information about the facility emergency coordinator should be kept up to date.

EMERGENCY RELEASE NOTIFICATION (SECTION 304)

Release of a "reportable quantity" (RQ) of a "hazardous substance" (CERCLA) or "extremely hazardous substance" (EPCRA)

"Release" includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of something into the environment. (40 CFR 355.20)

For releases that are totally contained within a facility and only persons associated with the facility are exposed, no report is required.

The "reportable quantities" (RQs) are not the same as "threshold planning quantities" (TPQs).

The reporting requirements under Section 304 are in addition to reporting requirements under CERCLA, and other statutes/regulations.

EMERGENCY RELEASE NOTIFICATION (SECTION 304)

Immediate oral report to LEPC and SERC

Each facility should have a management system in place to make all required notifications of spills (releases). EPCRA requires an "immediate" oral report for which the time frame is not specified.

The immediate oral notification must include:

- Identity of released substance.
- Whether the chemical is an extremely hazardous substance.
- Estimated quantity released.
- Time and duration of release.
- Medium into which the release occurred.
- Any known or anticipated health risks, and advice regarding medical attention.
- Precautions to take regarding the release.
- Names and telephone numbers of contact persons for further information.

EMERGENCY RELEASE NOTIFICATION (SECTION 304)

Follow-up written report

The follow-up written report includes:

- An update of the oral information.
- An indication of actions taken to respond to and contain the release.
- An indication of any known or anticipated health risks.
- An indication of any further medical advice for those exposed.

MATERIAL SAFETY DATA SHEET SUBMISSION (SECTION 311)

Obligated facilities: Those required under OSHA to prepare or have MSDSs available

Applies to federal agencies because of an Executive Order of the President.

MATERIAL SAFETY DATA SHEET SUBMISSION (SECTION 311)

Obligation: Provide a list or copies of MSDSs for certain chemicals for which MSDSs are available, or a copy of MSDSs to SERC, LEPC, and local fire department

The Section 311 reporting requirement is triggered by the presence of "hazardous chemicals" (specifically defined) or "extremely hazardous substances" in specific threshold amounts.

MATERIAL SAFETY DATA SHEET SUBMISSION (SECTION 311)

Due date: August 3, 1994; within 3 months of new chemical in facility

If a facility has missed the reporting deadline, it is recommended that the report be completed anyway.

MATERIAL SAFETY DATA SHEET SUBMISSION (SECTION 311)

Frequency: One time

It is advisable to keep the submissions of MSDSs to the SERC, LEPC, and local fire departments reasonably up to date, however.

MATERIAL SAFETY DATA SHEET INVENTORY (SECTION 312)

Obligated facilities: Those required by OSHA to prepare or have MSDSs

Section 312 reporting is required of federal facilities because of an Executive Order of the President.

MATERIAL SAFETY DATA SHEET INVENTORY (SECTION 312)

Obligation: Submit Tier I or Tier II data for certain "hazardous chemicals" and "extremely hazardous substances" to SERC, LEPC, and local fire department

The thresholds for Section 312 reporting are identical to the thresholds for Section 311 reporting.

MATERIAL SAFETY DATA SHEET INVENTORY (SECTION 312)

Due date: March 1, 1995, and annually thereafter

If a due date is missed, it is still advisable to make a report even though it is late.

TOXIC CHEMICAL RELEASE REPORTING (SECTION 313)

Obligated facilities: Those in certain SIC codes with 10 or more full-time employees, and federal facilities, that manufacture, process, or use listed "toxic chemicals" in designated amounts

"SIC" means "standard industrial classification". Originally, Section 313 reporting only applied to the manufacturing industries in SIC codes 20-39. It has been expanded to other SIC codes such as codes for electric power plants.

Section 313 applies to federal facilities because of an Executive Order of the President.

"Toxic chemicals" is specifically defined. (40 CFR 372.65)

For purposes of Section 313, the reporting requirement includes all releases of toxic chemicals to the air, land or water including accidental releases and permitted releases (such as from a smoke stack with a permit; disposals at landfills or other treatment facilities; discharges to sewers).

TOXIC CHEMICAL RELEASE REPORTING (SECTION 313)

Obligation: Written report to EPA and designated State official regarding toxic chemical quantities, waste treatment methodology and efficiency, and quantity released to each environmental media

Reports must be submitted on an EPA form called "Form R".

TOXIC CHEMICAL RELEASE REPORTING (SECTION 313)

Due date: July 1, 1995, and annually thereafter

Even if a due date is missed, it is advisable to make the report even though it is late.

SPECIAL WASTES

Used oil – If recycled, normal hazardous waste rules do not apply.

Universal Wastes.

UNIVERSAL WASTES

"Universal wastes" include:
•Nicad batteries.
•Returned pesticides.
•Mercury thermometers.

For handling less than 5000 kg at a time, comply with streamlined standards to prevent releases, employee training, packaging, labeling, accumulation time, tracking shipments, and disposal at qualified facilities.

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Module 4

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Federal agencies are not covered directly by the Occupational Safety and Health Act (OSH Act). However, Section 19 of the OSH Act designates the head of each agency as responsible for the safety and healthy working conditions of employees. A series of Executive Orders, mainly Executive Order 12196 in 1980, provide that federal agencies generally are supposed to comply with Occupational Safety and Health Administration (OSHA) standards unless they can justify alternatives. This includes the Hazard Communication Standard, which is also called the "worker right-to-know rule".

Overall purpose is to inform employees of hazards from chemicals in the workplace, and how to avoid or minimize exposure to hazardous chemicals.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Prepare a written hazard communications plan

The plan must be available to employees.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Identify and evaluate the chemical hazards in the workplace

Applies to virtually all chemicals including petroleum, office products such as whiteout and toner, pesticides, and many thousands of other chemicals.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Prepare a hazardous chemicals inventory

An inventory of chemicals is important for EPCRA purposes as well.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Develop a file of Material Safety Data Sheets (MSDSs)

A management system needs to be implemented to receive MSDSs from manufacturers and distributors as chemicals are ordered and received in the workplace.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Provide employee access to MSDSs

The file may not be locked away so that employee access is denied.

Assure that all MSDSs are kept in the book.

Electronic access may be used to supplement MSDSs on paper.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Ensure that incoming products have proper labels

Proper labeling and providing MSDSs is the responsibility of the chemical manufacturer. However, each employer must assure that proper labeling and MSDSs are available to workers.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Develop a system for with-in facility labeling where necessary

If chemicals are placed into containers other than provided by the manufacturer, the employer must have a system for labeling the new containers unless the chemicals are for immediate use.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Develop a training program

Format for the training program is left to the individual employer.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Identify and train employees who are potentially exposed to hazardous chemicals

Training required at the time of initial assignment and whenever a new hazard is introduced into the workplace.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Evaluate the program, and improve and update where necessary

WRITTEN HAZARD COMMUNICATION STANDARD

- **What HCS requires**
- **Where to find the written Hazard Communication Standard, lists, MSDSs**
- **What information on labels and MSDSs means**
- **How to use the information**
- **Other procedures/equipment for safety**

The written program must contain all of these elements.

MSDS CONTENT

- Hazardous ingredients/identity information.
- Physical/chemical characteristics.
- Fire/explosion hazard data.
- Reactivity data.
- Health hazard data.
- Primary routes of entry.
- Permissible exposure limit (PEL), Threshold Limit Value (TLV).
- Precautions for safe handling/use.
- Control measures (engineering, work practices, PPE).
- Emergency and first aid procedures.
- Date of preparation of MSDS.
- Name, address, telephone for manufacturer.

EMPLOYEE TRAINING

- **Methods observations used to detect presence or release of hazardous chemicals**
- **Physical/health hazards of chemicals to which the worker may be exposed**
- **Protective measures for employees to take**
- **Details of the HCS including labels, MSDSs, uses of information**

Document training.

CONTAINER LABELS

Containers must be labeled clearly with:

- Popular or chemical name.
- Appropriate hazard warning.
- Name/address of responsible party (manufacturer) to be contacted.
- Exceptions for portable containers, pesticides, drugs, alcohols, consumer products.

Hazardous Waste Operations and Emergency Response (HAZWOPER) (29 CFR 1910.120)

- **Required both EPA and OSHA to develop identical health and safety regulations for emergency response**
- **Regulations cover all employees engaged in hazardous waste operations and in emergency response**
- **Regulations effective March 6, 1990**
- **5 training levels**

"Hazardous waste operations and emergency response" includes:

Clean-up operations required by any level of government involving hazardous substances at "uncontrolled hazardous waste sites". ("Uncontrolled hazardous waste site" means an area identified as an uncontrolled hazardous waste site by a governmental body, whether federal, state, local or other, where an accumulation of hazardous substances creates a threat to the health and safety of individuals or the environment or both. Some sites are found on public lands such as those created by former municipal, county or state landfills where illegal or poorly managed waste disposal has taken place. Other sites are found on private property, often belonging to generators or former generators of hazardous substance wastes (sic). Examples of such sites include, but are not limited to, surface impoundments, landfills, dumps, and tank or drum farms. Normal operations at TSD sites are not covered by this definition.) (29 CFR 1910.120(a)(3).

1. Corrective actions involving clean-up operations at sites covered by the Resource Conservation and Recovery Act (RCRA).
2. Voluntary clean-up operations at sites recognized by any level of government as uncontrolled hazardous waste sites.
3. Operations involving hazardous wastes conducted at TSD facilities under RCRA in certain cases.
4. Emergency response operations for release of, or substantial threats of releases of, hazardous substances without regard to location of the hazard.

LEVEL 1
FIRST RESPONDER – AWARENESS LEVEL

Witnesses or discovers a release of hazardous materials and is trained to notify proper authorities

First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release.

Virtually everyone can be a first responder awareness level.

LEVEL 1 TRAINING

Sufficient training or demonstrated competency in these areas:

- **Understanding what hazardous materials are**
- **Understanding potential outcomes of emergencies involving hazardous materials**
- **Recognizing the presence of hazardous materials**

No specific number of hours of training is required.

LEVEL 1 TRAINING (CONT'D)

- Identifying hazardous materials
- Understanding the role of the First Responder Awareness individual
- Recognizing the need for additional resources
- Annual refresher required

LEVEL 2
FIRST RESPONDER – OPERATIONS LEVEL

Responds to releases of hazardous materials in a defensive manner without trying to stop the release

First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures.

LEVEL 2 TRAINING

8 hours of initial training or proven experience to demonstrate competency in these areas:

- **Level 1 training**
- **Understanding basic hazard and risk assessment techniques**
- **Understanding selection and use of personal protective equipment**

LEVEL 2 TRAINING (cont'd)

- Understanding basic hazardous materials terms
- Understanding basic control, containment, and/or confinement operations
- Understanding basic decontamination procedures
- Understanding relevant standards operating and termination procedures
- Annual refresher required

LEVEL 3
HAZMAT TECHNICIAN

Responds aggressively to stop a release of hazardous materials

Hazardous material technicians are individuals who respond to release or potential releases for the purpose of stopping the release. They assume a more aggressive role than the first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance.

HAZMAT Technicians must receive at least 24 hours of training equal to the first responder operations level, and in addition have competency in the following areas:

1. Know how to implement the employer's emergency response plan.
2. Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.
3. Be able to function within an assigned role in the Incident Command System.
4. Know how to select and use proper specialized chemical personal protective equipment.
5. Understand hazard and risk assessment techniques.
6. Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.
7. Understand and implement decontamination procedures.
8. Understand termination procedures.
9. Understand basic chemical and toxicological terminology and behavior.

LEVEL 4
HAZMAT SPECIALIST

Responds with and in support of HAZMAT Technicians and has specific knowledge of various hazardous materials

Hazardous material specialists are individuals who respond with and provide support to hazardous material technicians. Their duties parallel those of the hazardous materials technicians, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous material specialist would also act as the site liaison with federal, state, local and other government authorities in regards to site activities.

HAZMAT Specialists must have 24 hours of training equal to the technician level, and
in addition have competency in the following areas:

1. Know how to implement the local emergency response plan.
2. Understand the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.
3. Know of the state emergency response plan.
4. Be able to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist.
5. Understand in-depth hazard and risk techniques.
6. Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.
7. Be able to determine and implement decontamination procedures.
8. Have the ability to develop a site safety and control plan.
9. Understand chemical, radiological and toxicological terminology and behavior.

LEVEL 5
ON-SCENE COMMANDER

Assumes control of the incident scene beyond the first responder level

Incident commanders assume control of the incident scene beyond the first responder awareness level.

On Scene Commanders must have at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas:

1. Know and be able to implement the employer's incident command system.
2. Know how to implement the employer's emergency response plan.
3. Know and understand the hazards and risks associated with employees working in chemical protective clothing.
4. Know how to implement the local emergency response plan.
5. Know of the state emergency response plan and of the federal Regional Response Team.
6. Know and understand the importance of decontamination procedures.

DEPARTMENT OF TRANSPORTATION REGULATIONS (DOT) (49 CFR)

Department of Transportation (DOT) regulations apply to shipments of hazardous materials "in commerce". Generally, that only applies to commercial activities. Government shipments of hazardous materials on government vehicles operated by government employees are not generally engage "in commerce". However, safety considerations may dictate that management have a policy in some cases of following DOT shipping requirements.

DOT shipping requirements include:

1. Proper labeling of containers.
2. Proper placarding of the vehicle.
3. Shipping papers on the vehicle.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA)

Modern name is "Federal Environmental Pesticide Control Act of 1972" (FEPCA).

Applies primarily to manufacturers and distributors of pesticides. Also applies to users of pesticides.

FIFRA

Covers use of all "pesticides" which are defined as all pesticides, herbicides, algaecides, insecticides, fungicides, rodenticides, miticides, and all other similar chemicals.

FIFRA REGULATIONS

- **Store, handle, and use pesticides in a manner consistent with the label/labeling**
- **Dispose of empty containers in accordance with label/labeling instructions**

The regulations actually say that it is unlawful to use a pesticide in a manner that is "inconsistent" with the labeling.

Be cautious about reusing empty pesticide containers for trash or other uses. Many pesticide containers have a restriction on any reuse.

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Module 5

CLEAN AIR ACT
(CAA)

- **Delegable to the States**
- **Permitting and enforcement statute**

Three primary areas of regulation under the Clean Air Act:

1. All new and existing sources of air pollution are prohibited pollution that exceeds ambient air quality levels designed to protect public health and welfare. The ambient air quality program is implemented through source specific emission limits contained in State Implementation Plans (SIPs).

2. New sources are subject to more stringent control technology and permitting requirements.

3. Specific pollution problems such as hazardous air pollutants and visibility impairment are also addressed.

NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

- **NAAQS established for 6 pollutants to protect public health and welfare:**
  - **Sulfur dioxide (SO2)**
  - **Nitrogen dioxide (NO2)**
  - **Lead (Pb)**
  - **Carbon monoxide (CO)**
  - **Ozone (O3)**
  - **Particulate matter less than 10 microns**

National Ambient Air Quality Standards (NAAQS) are the centerpiece of the Clean Air Act (CAA). The NAAQS address pervasive pollution that endangers public health and welfare.

For each of the 6 pollutants, there are primary and secondary standards. The primary standards are designed to protect public health. The secondary standards are designed to protect public welfare.

ATTAINMENT/NONATTAINMENT OF NAAQS

- **Areas that meet NAAQS for each air pollutant are said to be in "attainment" for that pollutant**
- **Areas that do not meet NAAQS for an air pollutant are said to be in "non-attainment" for that pollutant**

Note that an area may be in attainment for some pollutants and in non-attainment for others.

STATE IMPLEMENTATION PLAN (SIPS)

- **States with areas that are in "non-attainment" for any air pollutant, must develop an enforceable plan called a "SIP" to reach "attainment"**
- **SIPs must contain requirements for air emission permits for new and modified major and minor stationary sources of air pollutants**

Remember that permits issued to industrial facilities are valuable sources of information concerning pollutants from those facilities.

VISIBILITY PROTECTION AND AIR QUALITY RELATED VALUES (AQRVS)

CAA established a national goal to eliminate all manmade visibility impairments in "mandatory Class I areas"

MANDATORY CLASS I AREAS

Includes international parks; national wilderness areas; and, national memorial parks exceeding 5,000 acres and national parks exceeding 6,000 acres in existence on August 7, 1977.

AIR QUALITY RELATED VALUES

For new and modified air pollutant sources, air permitting authorities must consider whether emissions from the proposed source will have an adverse impact on air quality related values, including visibility, in a mandatory Class I area

OPERATING PERMIT PROGRAM

Requires many major air pollutant sources to obtain an operating permit that consolidates all applicable federal regulations for the source into a single permit

Again, the application that an industrial facility submits in order to obtain an operating permit is a good source of information about the facility.

CLEAN WATER ACT (CWA)

- **Delegable to the States**
- **Permitting and enforcement statute**

Clean Water Act (CWA) goals:

1. Elimination of the discharge of pollutants into surface waters (note that the CWA focuses on surface water, not groundwater).
2. Achievement of a level of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water.

Major elements of the Clean Water Act (CWA):

1. A prohibition of discharges, except in compliance with the Act.
2. A permit program to authorize and regulate certain discharges.
3. A system for determining the limitations to be imposed on regulated discharges.
4. A process for cooperative federal/state implementation.
5. A system for preventing, reporting and responding to spills.
6. A permit program governing the discharge or placement of dredged or fill material into the nation's waters.
7. A strong enforcement mechanism.

WATER DISCHARGES

Permit required for the "discharge" of a "pollutant" to "navigable waters" from "point source"

"DISCHARGE"

Includes the addition of any amount or type of a pollutant, except for pollutants in intake waters discharged to the same source, and incidental fallback of material from dredging operations

"POLLUTANT"

Virtually everything that can be added to water including dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste

By this definition, virtually all waters contain pollutants, including potable water used for drinking.

"NAVIGABLE WATERS"

- **Includes all "waters of the United States" which includes interstate waters, intrastate waters, impoundments, wetlands, and, arguably, groundwater hydrologically connected to surface waters**
- **Does not include groundwater, but many States include groundwater as "water of the State" for permitting purposes**

"POINT SOURCE"

Any discernable, confined and discrete conveyance from which pollutants are or may be discharged

Includes hoses, pipes, ditches, eroded areas on the ground, trucks, front-end loaders, barrels, buckets, and every other sort of conveyance. The only thing not covered is sheet runoff.

WATER DISCHARGE PERMITS

❖**National Pollutant Discharge Elimination System (NPDES):**

- **Discharge limitations**
- **Monitoring requirements**
- **Reporting Requirements**

A water discharge permit (NPDES permit) is required for all water discharges except:

1. Sheet runoff (but sheet runoff often creates erosion which then is a point source).
2. Discharges into wholly intrastate waters (waters not falling within the definition of "waters of the U.S." are few and far between).
3. Discharges into wastewater treatment systems (but some of these discharges require a pretreatment permit).
4. Certain exempted activities such as discharge of sewage from vessels (other requirements apply), discharges from some agricultural and silvicutural activities, and discharges in compliance with instructions from an On-Scene Coordinator responding to a spill incident (40 CFR 122.3).

WATER DISCHARGE PERMITS

Storm water discharges from municipal and industrial activities

Most cities and many types of industries are required to have permits to discharge of storm water.

A storm water permit is required for clearing, grading, or otherwise disturbing more than 5 acres of ground.

WATER DISCHARGE PERMITS

Pretreatment program

Certain industries are required to "pretreat" their industrial waste to remove certain pollutants or reduce the amount of pollutants prior to discharging the pollutants to a publicly owned wastewater treatment plant.

DREDGE AND FILL PERMITS (SECTION 404 PERMITS)

- **U.S. Army Corps of Engineers jurisdiction**
- **Nation-wide Permits**
- **Individual Permits**

Dredge and fill (404) permits are under the jurisdiction of the U.S. Army Corps of Engineers. For any activity in which dredged and fill material will be discharged or placed into water of the U.S., a 404 permit is required. Incidental fallback of material during wetlands dredging operations is not covered (National Mining Assoc. v. U.S. Army Corps of Engineers, 145 F.3rd 1399 (D.C. Cir. 1998). However, Corps districts seem to have different policies about interpretation of the requirements.

All permits, both nation-wide and individual, contain conditions which must be followed.

There are several exemptions from the 404 permit requirements (33 U.S.C. 1344(f);
Section 404(f)):

1. Maintenance of dams, dikes and similar structures.
2. Construction of temporary sedimentation basins.
3. Construction of temporary farm, forest, and mining roads.
4. Several types of farm activities

SAFE DRINKING WATER ACT (SDWA)

- **Delegable to the States**
- **Controls contaminants in finished water provided by "public water systems"**
- **Establishes primary and secondary drinking water standards to protect public health and welfare**

Public Water Systems

❖" Community water system":

- Serves at least 15 service connections used by year round residents; or,
- Regularly serves at least 25 year round residents.

❖ "Non-community water systems"

- All public water systems that are not "community water systems".

❖"Transient, non-community water systems"

- A system that does not serve 25 of the same nonresidents per day for more than 6 months per year.

❖Non-transient, non-community water system"

- A non-community system with at least 15 service connections used by travelers or intermittent users for at least 60 days per year, or serving an average of 25 individuals for at least 60 days per year.

SDWA REGULATORY SCHEME

- **Maximum contaminant levels (MCLs) to protect human health**
- **Secondary maximum contaminant levels (SMCLs) for aesthetics**

- Radon in drinking water
- Sulfate in drinking water
- Disinfectants and By-Products Rule
- Surface Water Treatment Rule
- Ground water Disinfection Rule
- Lead/Copper Rule
- Information Collection Rule
- Consumer Confidence Reports
- Source Water Quality Assessments

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLANS (SPCC)

SPCC plan required for facilities engaged drilling, producing, gathering, storing, processing, refining, transferring, distributing, or consuming oil, and due to its location, it could reasonably be expected to discharge oil in harmful quantities(defined in Part 110) into or upon surface waters or adjoining shorelines.

SPCC EXEMPTIONS

- **Facilities with underground oil storage capacity 42,000 gallons or less**
- **Facilities with aboveground oil storage capacity 1320 gallons or less, provided that no single container has capacity in excess of 660 gallons**

- Includes all Oils
- To calculate the above ground storage amount, include the volume of all containers

SPCC REQUIREMENTS

- **Prepared and signed by a licensed, professional engineer**
- **Detailed content requirements**
- **Available on-site**

SPILL NOTIFICATION

- **Immediate notification required to National Response Center for discharge of oil which causes a "sheen" on water, and about 300 hazardous substances in "reportable quantities"**
- **Reporting is in addition to CERCLA and EPCRA reporting requirements**

Managers need to have a written spill response plan that incorporates this and other reporting requirements.

MODULE 6

- Environmental Management Systems
- Internal/External Communications
- Environmental Justice

Environmental Justice

- Executive Order 12898 (February 11, 1994)
  - To focus federal agency attention on human health and environmental conditions in minority and low income communities
  - To foster non-discrimination in federal programs that substantially affect human health or the environment

Environmental Justice (cont'd)

To give minority and low income communities greater opportunities for public participation in matters relating to human health and the environment

Federal Agency Responsibilities

- Identify and address disproportionately high and adverse human health or environmental affects on minority and low income populations
- Develop a strategy for identifying and addressing such affects
- Conduct activities in a manner not to exclude minority/low income populations, deny benefits, or discriminate

Federal Agency Responsibilities (cont'd)

- Environmental human health research, data collection, and analysis must include diverse populations
- Special provisions relating to subsistence consumption of fish and wildlife
- Special provisions for public participation and access to information